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APPLICATION NO. FILING DA		ILING DATE	PATE FIRST NAMED INVENTOR		CONFIRMATION NO.		
09/936,469	09/936,469 02/13/2002		Walter Nowak	3212-24	4221		
8933	7590	03/18/2004		EXAM	EXAMINER		
DUANE N	ORRIS,	LLP	LIN, T	LIN, TINA M			
IP DEPART		CE	ART UNIT	PAPER NUMBER			
		A 19103-7396	2874				
				DATE MAILED: 03/18/200	DATE MAILED: 03/18/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

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		Application	n No.	Applicant(s)					
		09/936,469)	NOWAK ET AL.					
	Office Action Summary	Examiner		Art Unit					
		Tina M Lin		2874					
Period fo	The MAILING DATE of this communic or Reply	ation appears on the	cover sheet with the c	orrespondence add	dress				
THE - External after of the control	MAILING DATE OF THIS COMMUNIC ensions of time may be available under the provisions of SIX (6) MONTHS from the mailing date of this communic period for reply specified above is less than thirty (30). Depriod for reply is specified above, the maximum stature to reply within the set or extended period for reply wireply received by the Office later than three months after the patent term adjustment. See 37 CFR 1.704(b).	ATION. 37 CFR 1.136(a). In no even nication. days, a reply within the statute tory period will apply and will ill, by statute, cause the applic	ort, however, may a reply be ting ory minimum of thirty (30) day expire SIX (6) MONTHS from the cation to become ABANDONE	nely filed s will be considered timely. the mailing date of this cor (35 U.S.C. § 133).	mmunication.				
Status									
1)	Responsive to communication(s) filed	on							
2a) <u> </u>	This action is FINAL . 2b)⊠ This action is non-final.								
3)□	, _								
	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.								
Disposit	ion of Claims								
4)⊠	Claim(s) <u>1-14 and 1623</u> is/are pendi	ng in the application.							
,—	4a) Of the above claim(s) is/are withdrawn from consideration.								
5)	Claim(s) is/are allowed.								
6)⊠	Claim(s) <u>1-3,5,8,9,12,14,16,17,21 and 23</u> is/are rejected.								
7)🛛	Claim(s) <u>4,6,7,10,11,13,18-20 and 22</u> is/are objected to.								
8)□	Claim(s) are subject to restriction and/or election requirement.								
Applicat	tion Papers								
9)	The specification is objected to by the	Examiner.							
,	The drawing(s) filed on 12 September		cepted or b) dobject	ted to by the Exam	niner.				
,_	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).								
11)	The oath or declaration is objected to	by the Examiner. Not	te the attached Office	Action or form PT	O-152.				
Priority	under 35 U.S.C. § 119								
•	Acknowledgment is made of a claim for the priority description of the priority description. Acknowledgment is made of a claim for the priority description. Acknowledgment is made of a claim for the priority description. Acknowledgment is made of a claim for the priority description. Acknowledgment is made of a claim for the priority description. Acknowledgment is made of a claim for the priority description.	ocuments have beer ocuments have beer	n received. n received in Applicat	ion No	Stage				
	application from the Internation				-				
*	See the attached detailed Office action	·		∍d.					
Attachme			Λ □ J=4== ± 2 · · · ·	(DTO 442)					
	ce of References Cited (PTO-892) ice of Draftsperson's Patent Drawing Review (PT	O-948)	4) Interview Summary Paper No(s)/Mail D	ate					
3) 🔯 Info	mation Disclosure Statement(s) (PTO-1449 or P er No(s)/Mail Date 1/29/02.	PTO/SB/08)		Patent Application (PTC)-152)				

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DETAILED ACTION

Receipt from the International Bureau is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) in this national stage application, which papers have been placed of record in the file.

New corrected drawings are required in this application because: The drawings filed with this application on 12 September 2001, are objected to as being informal. Notice that Figure 1 the labels are handwritten. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim 1 is objected to because of the following informalities: On line 8 of claim 1, the two words "an other" appears to be a typographical error. It appears the two words should read as one word, "another". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims1-3, 5, 8, 9, 12, 14, 16, 17, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,903,683 to Lowry in view of U.S. Patent 5,878,071 to Delavaux. In regards to claims 1, 2, 3, 5, 9, 12, 14, 16, 17, 21 and 23 and referring to Figure 6, Lowry

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discloses a transmission component comprising of a multimode fiber optical waveguide with three gratings connected in series, where the grating reflects arriving light back to another grating and that grating reflects light back in the opposite direction to another grating and the process continues through all the gratings, where each time the light reflects, the mode changes. But Lowry fails to specifically disclose two pairs of chirped Bragg gratings. However, Lowry does disclose that the number of gratings is not limited to the three shown in Figure 6, any number of gratings can be used in order to allow from a more complicated delay or dispersion compensations. (Column 9) Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used two pairs or four gratings in order to obtain the desired dispersion compensation. Furthermore, Lowry discloses that the user compensates for dispersion by used a wavelength dependant selection of delay to arrange the signal By Applicant definition of a chirped on page 2 of the Specification, a chirped Bragg grating is a grating where the propagation path is wavelength dependant. Since Lowry discloses the dispersion compensation is wavelength dependant and a known method to compensate dispersion is by using a wavelength dependant chirped Bragg grating, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a chirped Bragg grating in order to obtain the wavelength dependant feature in the waveguide. Lastly, Lowry fails to disclose the optical waveguide to be made of glass. However, Delavaux discloses a chirped grating that can be written into glass waveguides. (Column 5) Since Lowry fails to mention the waveguide material, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a glass waveguide.

Allowable Subject Matter

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Claims 4, 6, 7, 10, 11, 13, 18, 19, 20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record in this application fails to disclose or reasonably suggest two gratings each having a different grating constant ranges and opposite chirps, a glass core with a parabolic refractive index profile, the gratings are obliquely angled, and the cladding mode is used to carry modes. The prior art of record further fails to disclose or reasonably suggest the glass waveguide to have means for applying a mechanical force and temperature stabilization. The closest prior art of record is U.S. Patent 5,903,683 to Lowry discussed above and used in the art rejection above.

The documents submitted by applicant in the Information Disclosure Statement have been considered and made of record. Note attached copy of form PTO-1449. None of the documents submitted by Applicant discusses or reasonably suggests the allowable subject matter discussed above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References C-E fail to disclose or reasonably suggest the allowable subject matter discussed above.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M Lin whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).